Reviewer's report

**Title:** Overall survival is correlated with histology of bladder cancer in patients treated with cystectomy and adjuvant cisplatin-based chemotherapy

**Version:** 1  **Date:** 25 October 2012

**Reviewer:** Giovanni Lughezzani

**Reviewer's report:**

The authors examined the survival of patients treated with cystectomy and adjuvant cisplatin CT for bladder cancer according to different histological subtypes.

**Major compulsory revisions**

- The authors state that patients with locally-advanced bladder cancer were included in the analysis. From table 1, it appears that also some patients with pT1 and/or pN0 disease were included. I think the authors should provide better information about the inclusion criteria used for enrolling patients for the current study.

- The authors present a series of patients that were subjected to different adjuvant CT schemes. These different schemes may act as confounders in the overall survival analysis performed by the authors. Are there any data available on the survival outcomes of patients subjected to these different treatments? Are the toxicity profiles similar between these schemes? Were there any early events related to CT?

- I do not understand why the authors used overall survival as the outcome to be evaluated. Overall survival may be affected by several variables besides tumor characteristics (e.g. age, comorbidities etc.). Besides providing data on patients comorbidities on table 1, the authors should analyze the impact of histological subtypes on cancer-specific survival, as it may represent the best outcome to be evaluated to test the prognostic impact of tumor aggressiveness itself.

- It appears that the percentages are missing in Table 1. In addition, Table 1 should report the p-values obtained by comparing the different variables for each of the three histological subgroups. The statistical test used for evaluating these comparisons should also be reported in the methods section.

- The authors report that plasmacytoid patients showed significantly worse overall survival relative to patients with other histologies in Kaplan-Meier analysis (p=0.013). The authors should clarify the test use for such a comparison (I assume it is the log-rank test). In addition, they should provide to separate p-values referring to the comparison between PUC-UC and PUC-MPC, respectively.

- The authors should provide a table (Table 2) reporting the results of their multivariable Cox regression analysis. Specifically, it would be interesting to
know whether there were any other independent predictors of survival besides tumor histology. In addition, the authors report a significant overall survival difference between PUC and MPC patients only (p=0.045). Therefore, I assume that there were no significant differences between PUC and UC patients. This finding is somehow surprising. Do the authors have any explanation for this? Again, what about testing cancer-specific survival?

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'